# Monthly Flash Estimates of

# **Electric Power Data**

# **Section 1. Commentary**

The contiguous United States as a whole experienced near normal temperatures in June 2009. However, regional differences in temperature occurred as the South, Southeast, and Northwest all experienced above normal temperatures while the rest of the United States experienced below normal temperatures. Cooling degree days for the contiguous United States were 4.2 percent above the average for the month of June and 15.9 percent below a much warmer June 2008.

In June 2009, retail sales of electricity decreased 7.3 percent compared to June 2008. This decrease in retail sales was caused mainly by the significant decline in industrial consumption as observed by the 14.6-percent decrease in industrial retail sales over the same period. The average U.S. retail price of electricity decreased 1.0 percent in June 2009 compared to June 2008. While decreases in the average U.S. retail price occurred in the commercial, industrial, and transportation sectors, the average residential retail price did increase by 0.6 percent from June 2008 to June 2009.

Total electric power generation in the United States decreased 6.4 percent from June 2008. Over the same period, coal generation decreased by 12.7 percent as a result of the increased cost of coal as a fuel used in electricity generation and the decrease in demand for electric power due to the economic downturn in the United States. Natural gas generation in June 2009 decreased slightly by 0.3 percent compared to June 2008. Petroleum liquids generation had the largest year-over-year percentage decline, decreasing 42.8 percent as a result of a much warmer June 2008 and the increased need for peaking generation at that time. Conventional hydroelectric generation was 3.9 percent higher than June 2008 and 1.6 percent higher than May 2009 as many States east of the Mississippi River and in the Northwest experienced above normal precipitation in June 2009.

Total coal stocks in the Electric Power Sector remained at a historically high level in June 2009 and was relatively unchanged from the previous month, increasing by only 0.1 percent. The May 2009-to-June 2009 change in coal stocks consisted of a 1.8-percent increase in bituminous coal and a 1.4-percent decrease in subbituminous coal. Petroleum liquids stocks increased 0.6 percent from May 2009.

References for weather data:

http://www.ncdc.noaa.gov/oa/climate/research/2009/jun/national.html

### Table of Contents

1.	Commentary	Page 1
2.	Key Indicators of Generation, Consumption & Stocks	Page 2
3.	Month-to-Month Comparisons: Generation, Consumption and Stocks (Total)	Page 3
4.	Net Generation Trends	Page 4
5.	Fossil Fuel Consumption Trends	Page 5
6.	Fossil Fuel Stock Trends	Page 6
7.	Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices	Page 7
8.	Retail Sales Trends	Page 8
9.	Average Retail Price Trends	Page 9
10.	Heating and Cooling Degree Days	Page 10
11.	Documentation	Page 11

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained herein should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy of the Department of Energy or any other organization. For additional information, contact Chris Cassar at 202-586-5448, or at Christopher.Cassar@eia.doe.gov.



Table 2.1 Key Generation Indicators									
	TotalNuclearHydroelectricGenerationGenerationGeneration								
Total Change From:									
May 2009	12.0%	6.4%	1.6%						
June 2008	-6.4%	-1.3%	3.9%						
Year to Date	-4.9%	1.4%	7.7%						
Latest 12 Month Period*	-3.9%	0.9%	6.8%						

# Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
May 2009	24.1%	12.2%	0.1%
June 2008	-2.0%	-11.5%	28.8%
Year to Date	1.1%	-11.1%	
Latest 12 Month Period*	-4.7%	-6.4%	

Change in total consumption or generation for the latest 12 month period (July 2008 to June 2009) compared to the prior 12 month period (July 2007 to June 2008).

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)										
Net Generation (thousand megawatthours)	Jun-09	Jun-08	% Change	May-09	% Change					
Coal	149,946	171,683	-12.7%	132,723	13.0%					
Petroleum Liquids	2,134	3,733	-42.8%	2,061	3.5%					
Natural Gas	83,832	84,122	-0.3%	68,471	22.4%					
Nuclear	69,435	70,319	-1.3%	65,229	6.4%					
Hydroelectric Conventional	29,617	28,493	3.9%	29,142	1.6%					
All Other	13,672	14,092	-3.0%	13,784	-0.8%					
Total (All Energy Sources)	348,636	372,443	-6.4%	311,411	12.0%					

## Fossil Fuel Consumption for Electric Generation (Total, All Sectors)

Table 3.2 Total Consumption of Fossil Fuels for Electric Generation (All Sectors)											
Consumption of Fossil Fuels Jun-09 Jun-08 % Change May-09 % Change											
Coal (Thousand Short Tons)	79,493	89,785	-11.5%	70,841	12.2%						
Petroleum Liquids (Thousand Barrels)	3,604	6,341	-43.2%	3,497	3.1%						
Natural Gas (Million Cubic Feet)         664,157         677,700         -2.0%         535,327         24.1%											

## Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)											
Fossil Fuel Stocks	Fossil Fuel Stocks Jun-09 Jun-08 % Change May-09 % Change										
Coal (Thousand Short Tons)	198,222	153,915	28.8%	197,972	0.1%						
Petroleum Liquids (Thousand Barrels) 43,825 44,778 -2.1% 43,544 0.6%											

Notes:

- Coal consumption and generation includes subbituminous coal, bituminous coal, anthracite, lignite, waste coal and coal synfuel.

- Coal stocks include the coal categories listed immediately above except for waste coal. The bituminous category includes anthracite and coal synfuel.

- Petroleum Liquids consumption and generation includes distillate oil, residual oil, jet fuel, kerosene and waste oil.

- Petroleum Liquids stocks includes the oil categories listed immediately above, except waste oil is excluded from data collected for January 2004 and subsequently. Data prior to 2004 contains small quantities of waste oil.

- The "All Other" generation category includes biomass, solar, wind, geothermal, hydroelectric pumped storage, petroleum coke, other gases, and other miscellaneous energy sources.

### Section 4. Net Generation Trends

#### Data for: June 2009

#### Table 4.1 Trends in Total Generation by Fuel (All Sectors) Millions of Kilowatthours

Year-to-Date Comparison											
	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total		
Current Period	January 2009	June 2009	861,066	14,930	409,132	398,419	146,558	83,334	1,913,439		
Prior Period	January 2008	June 2008	986,136	15,663	401,928	393,060	136,060	78,868	2,011,715		
Percent Difference			-12.7%	-4.7%	1.8%	1.4%	7.7%	5.7%	-4.9%		

#### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	July 2008	June 2009	1,869,315	30,428	884,152	811,540	258,583	157,966	4,011,984
Prior Period	July 2007	June 2008	2,026,162	37,500	915,083	804,700	242,041	149,654	4,175,140
Percent Difference			-7.7%	-18.9%	-3.4%	0.9%	6.8%	5.6%	-3.9%



### Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison												
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)							
Current Period	January 2009	June 2009	455,533	25,062	3,150,598							
Prior Period	January 2008	June 2008	512,144	26,248	3,117,858							
Percent Difference			-11.1%	-4.5%	1.1%							

Comparison to Prior 12 Month Period											
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)						
Current Period	July 2008	June 2009	986,978	51,082	6,866,137						
Prior Period	July 2007	June 2008	1,054,058	62,742	7,208,518						
Percent Difference			-6.4%	-18.6%	-4.7%						







### Section 6. Fossil Fuel Stock Trends

Table 6.1 Trends in Total Fossil Fuel Stocks (Electric Power Sector)										
Fossil Fuel Stocks	Jun-09	Jun-08	% Change	May-09	% Change					
Coal, Total (Thousand Short Tons)	198,222	153,915	28.8%	197,972	0.1%					
Bituminous (includes anthracite and coal synfuel)	92,190	63,155	46.0%	90,579	1.8%					
Subbituminous	99,958	86,190	16.0%	101,371	-1.4%					
Lignite	6,074	4,570	32.9%	6,022	0.9%					
Petroleum Liquids (Thousand Barrels)	43,825	44,778	-2.1%	43,544	0.6%					







# Section 7. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices

## **Retail Sales**

Table 7.1 Retail Sales (Million kWh)											
Ultimate Customer Jun-09 Jun-08 % Change May-09 % Change											
Residential	114,112	121,093	-5.8%	94,027	21.4%						
Commercial	115,941	120,349	-3.7%	106,200	9.2%						
Industrial	72,433	84,855	-14.6%	72,319	0.2%						
Transportation	Transportation 602 622 -3.3% 577 4.3%										
All Sectors	303,088	326,919	-7.3%	273,124	11.0%						

# **Average Retail Price**

Table 7.2 Average Retail Price (Cents/kWh) U.S. Total									
Ultimate Customer	Jun-09	Jun-08	% Change	May-09	% Change				
Residential	11.91	11.84	0.6%	11.86	0.4%				
Commercial	10.51	10.88	-3.4%	10.12	3.9%				
Industrial	7.18	7.40	-3.0%	6.89	4.2%				
Transportation	11.43	11.79	-3.1%	11.61	-1.6%				
All Sectors	10.24	10.34	-1.0%	9.87	3.7%				

Table 7.3 Average Retail Price (Cents/kWh) by Census Division										
Census Division		Residential			All Sectors					
	Jun-09	Jun-08	% Change	Jun-09	Jun-08	% Change				
New England	18.08	17.46	3.6%	15.73	16.06	-2.1%				
Middle Atlantic	16.12	16.25	-0.8%	13.79	14.48	-4.8%				
East North Central	11.43	10.97	4.2%	9.26	8.85	4.6%				
West North Central	10.07	9.70	3.8%	8.30	7.88	5.3%				
South Atlantic	11.53	10.96	5.2%	10.04	9.59	4.7%				
East South Central	9.82	9.55	2.8%	8.51	8.17	4.2%				
West South Central	11.44	12.29	-6.9%	9.39	10.93	-14.1%				
Mountain	10.61	10.56	0.5%	8.72	8.70	0.2%				
Pacific Contiguous	12.78	12.67	0.9%	12.05	11.78	2.3%				
Pacific Noncontiguous	20.56	27.31	-24.7%	17.79	24.64	-27.8%				
U.S. Total	11.91	11.84	0.6%	10.24	10.34	-1.0%				

### Section 8. Retail Sales Trends

# Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors) Millions of Kilowatthours

Year-to-Date Comparison										
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)			
Current Period	January 2009	June 2009	656,917	638,505	427,047	3,791	1,726,259			
Prior Period	January 2008	June 2008	663,436	652,487	494,514	3,832	1,814,269			
Percent Difference			-1.0%	-2.1%	-13.6%	-1.1%	-4.9%			

#### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	July 2008	June 2009	1,372,789	1,338,471	914,682	7,611	3,633,553
Prior Period	July 2007	June 2008	1,399,143	1,351,776	1,020,813	7,855	3,779,587
Percent Difference			-1.9%	-1.0%	-10.4%	-3.1%	-3.9%







# Section 9. Average Retail Price Trends

# Table 9.1 Trends in Average Retail Price of Electricity (All Sectors) Cents per Kilowatthour

Year-to-Date Comparison										
	1				r					
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)			
Current Period	January 2009	June 2009	11.47	10.15	6.93	11.47	9.86			
Prior Period	January 2008	June 2008	10.87	9.90	6.70	10.67	9.38			
Percent Difference			5.5%	2.5%	3.4%	7.5%	5.1%			

Comparison to Prior 12 Month Period									
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)		
Current Period	July 2008	June 2009	11.64	10.40	7.15	11.69	10.05		
Prior Period	July 2007	June 2008	10.86	9.86	6.61	10.15	9.35		
Percent Difference			7.2%	5.5%	8.2%	15.2%	7.5%		





### Section 10. Heating and Cooling Degree Days

Data for: June 2009

#### Table 10.1 Degree Days

		Heating Degree Days Cooling Degree Days							
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From Normal	Percent Difference From Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From Normal	Percent Difference From Normal
Current Period	June 2009	43	39	4	10.3%	222	213	9	4.2%
Prior Period	June 2008	26	39	-13	-33.3%	264	213	51	23.9%
Percent Difference		65.4%				-15.9%			

#### Table 10.2 Trends in Heating and Cooling Degree Days

Year-to-Date Comparison				Comparison to Prior 12 Month Period					
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days	Starting Month Ending Month Heating Degree Da				Cooling Degree Days
Current Period	January 2009	June 2009	2,771	404	Current Period	July 2008	June 2009	4,487	1,260
Prior Period	January 2008	June 2008	2,778	421	Prior Period	July 2007	June 2008	4,330	1,398
Percent Difference			-0.3%	-4.0%	Percent Difference	9		3.6%	-9.9%





# Section 11. Documentation

**General:** The *Monthly Flash Estimates of Electric Power Data* (*"Flash Estimates"*) is prepared by the Electric Power Division, Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), U.S. Department of Energy. Data published in the *Flash Estimates* are compiled from the following sources: Form EIA-826, "Monthly Electric Utility Sales and Revenues with State Distributions Report," and Form EIA-923, "Power Plant Operations Report."

The survey data is collected monthly from a statistically-derived sample of power plants and electricity retailers. The nominal sample sizes are: for the Form EIA-826, approximately 450 electric utilities and other energy service providers; for the Form EIA-923, approximately 1590 plants. With the exception of stocks, a regression-based method is used to estimate totals from the sample. Essentially complete samples are collected for the *Electric Power Monthly*, which includes State-level values. The *Flash Estimates* is based on an incomplete sample and includes only national-level estimates. Stocks data for out-of-sample plants and any monthly non-respondents are estimated by bringing forward the last reported value for a plant.

For complete documentation on EIA monthly electric data collection and estimation, see the Technical Notes to the *Electric Power Monthly*, at: http://www.eia.doe.gov/cneaf/electricity/epm/epm.pdf. Values displayed in the *Flash Estimates* may differ from values published in the *Electric Power Monthly* due to independent rounding. This report represents the EIA's initial release for national level electricity data. Updated information will be released in the *Electric Power Monthly*.

**Sector definitions**: The Electric Power Sector comprises electricity-only and CHP plants within the North American Industrial Classification System 22 category whose primary business is to sell electricity, or electricity and heat, to the public (i.e., electric utility plants and Independent Power Producers (IPP), including IPP plants that operate as combined heat and power producers). The All Sectors totals include the Electric Power Sector and the Commercial and Industrial sectors (Commercial and Industrial power producers are primarily CHP plants).

#### Composition of fuel categories: See notes on page 3.

**Degree Days:** Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree days).